

What is claimed is:

1 1. A centralized maintenance parts management system comprising:

2 a warehouse facility for storing, in a centralized manner, a maintenance part for a plurality
3 of types of machines located at a plurality of plants;

4 a necessary parts management device for managing information about whether said
5 maintenance part is necessary for said machines; and

6 a parts shipment management device for specifying a maintenance part to be shipped from
7 said warehouse facility based on said management information in said necessary parts management
8 device.

1 2. The centralized maintenance part management system as described in claim 1, further
2 comprising an order management device for determining a maintenance part to be ordered and a
3 quantity thereof based on inventory information of said maintenance part to be ordered in said
4 warehouse facility or based on said management information in said necessary parts management
5 device.

1 3. The centralized maintenance part management system as described in claim 2, wherein:
2 said order management device allows input of a target value for a total price of said
3 maintenance part stored in said warehouse facility; and

4 when determining said quantity of said maintenance part to be ordered, said quantity of said
5 maintenance part to be ordered is reduced according to set conditions so that said total price of said
6 maintenance part stored in said warehouse facility approaches said target value.

1 4. The centralized maintenance part management system as described in claim 2, wherein:

2 said order management device estimates a quantity of a maintenance part needed based on
3 at least one of a change in a quantity of said maintenance part to be shipped from said warehouse
4 facility, a change in a maintenance inspection of said machines, and a change in an operating status
5 of said machines; and

6 said order management device determines said maintenance part to be ordered and said
7 quantity thereof.

1 5. The centralized maintenance part management system as described in claim 1, further
2 comprising an inspection period management device for storing information relating to periodic
3 inspection periods for said machines, wherein

4 when there is a new machine to be managed in one of said plants, said inspection period
5 management device uses said information relating to said periodic inspection periods for said
6 machines to determine a periodic inspection period for said machine to be newly managed that is
7 offset from said periodic inspection periods of said machines.

1 6. The centralized maintenance part management system as described in claim 1, wherein
2 said necessary parts management device stores and maintains plant-by-plant inventory information
3 indicating a quantity of said maintenance part stored in said plurality of plants and uses said
4 plant-by-plant inventory information to evaluate whether said maintenance part is necessary.

1 7. The centralized maintenance part management system as described in claim 1, wherein,
2 said parts shipment management device determines a plurality of maintenance parts to be shipped
3 successively as a maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 8. The centralized maintenance part management system as described in claim 1, wherein
2 said warehouse facility is an automated warehouse.

1 9. The centralized maintenance part management system as described in claim 3, wherein:
2 said order management device estimates a quantity of a maintenance part needed based on
3 at least one of a change in a quantity of said maintenance part to be shipped from said warehouse
4 facility, a change in a maintenance inspection of said machines, and a change in an operating status
5 of said machines; and

6 said order management device determines said maintenance part to be ordered and said
7 quantity thereof.

1 10. The centralized maintenance part management system as described in claim 2, further
2 comprising an inspection period management device for storing information relating to periodic
3 inspection periods for said machines, wherein

4 when there is a new machine to be managed in one of said plants, said inspection period
5 management device uses said information relating to said periodic inspection periods for said
6 machines to determine a periodic inspection period for said machine to be newly managed that is
7 offset from said periodic inspection periods of said machines.

1 11. The centralized maintenance part management system as described in claim 3, further
2 comprising an inspection period management device for storing information relating to periodic
3 inspection periods for said machines, wherein

4 when there is a new machine to be managed in one of said plants, said inspection period
5 management device uses said information relating to said periodic inspection periods for said

6 machines to determine a periodic inspection period for said machine to be newly managed that is
7 offset from said periodic inspection periods of said machines.

1 12. The centralized maintenance part management system as described in claim 4, further
2 comprising an inspection period management device for storing information relating to periodic
3 inspection periods for said machines, wherein

4 when there is a new machine to be managed in one of said plants, said inspection period
5 management device uses said information relating to said periodic inspection periods for said
6 machines to determine a periodic inspection period for said machine to be newly managed that is
7 offset from said periodic inspection periods of said machines.

1 13. The centralized maintenance part management system as described in claim 2, wherein
2 said necessary parts management device stores and maintains plant-by-plant inventory information
3 indicating a quantity of said maintenance part stored in said plurality of plants and uses said
4 plant-by-plant inventory information to evaluate whether said maintenance part is necessary.

1 14. The centralized maintenance part management system as described in claim 3, wherein
2 said necessary parts management device stores and maintains plant-by-plant inventory information
3 indicating a quantity of said maintenance part stored in said plurality of plants and uses said
4 plant-by-plant inventory information to evaluate whether said maintenance part is necessary.

1 15. The centralized maintenance part management system as described in claim 4, wherein
2 said necessary parts management device stores and maintains plant-by-plant inventory information
3 indicating a quantity of said maintenance part stored in said plurality of plants and uses said

4 plant-by-plant inventory information to evaluate whether said maintenance part is necessary.

1 16. The centralized maintenance part management system as described in claim 5, wherein
2 said necessary parts management device stores and maintains plant-by-plant inventory information
3 indicating a quantity of said maintenance part stored in said plurality of plants and uses said
4 plant-by-plant inventory information to evaluate whether said maintenance part is necessary.

1 17. The centralized maintenance part management system as described in claim 2,
2 wherein, said parts shipment management device determines a plurality of maintenance parts to be
3 shipped successively as a maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 18. The centralized maintenance part management system as described in claim 3,
2 wherein, said parts shipment management device determines a plurality of maintenance parts to be
3 shipped successively as a maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 19. The centralized maintenance part management system as described in claim 4,
2 wherein, said parts shipment management device determines a plurality of maintenance parts to be
3 shipped successively as said maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 20. The centralized maintenance part management system as described in claim 5,
2 wherein, said parts shipment management device determines a plurality of maintenance parts to be

3 shipped successively as a maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 21. The centralized maintenance part management system as described in claim 6,
2 wherein, said parts shipment management device determines a plurality of maintenance parts to be
3 shipped successively as a maintenance inspection progresses, when a single machine needs said
4 maintenance parts to be shipped successively during said maintenance inspection.

1 22. A method of using a centralized maintenance part management system comprising the
2 steps of:

3 storing in a warehouse facility, in a centralized manner, a maintenance part for a plurality
4 of types of machines located at a plurality of plants;

5 managing information about whether said maintenance part is necessary for said machines;
6 and

7 specifying a maintenance part to be shipped from said warehouse facility based on said
8 management information.

1 23. The method of using the centralized maintenance part management system according to
2 claim 22, further comprising the step of:

3 determining a maintenance part to be ordered and a quantity thereof based on inventory
4 information of said maintenance part to be ordered in said warehouse facility or based on said
5 management information.

1 24. The method of using the centralized maintenance part management system according to

2 claim 23, further comprising the steps of:

3 inputting a target value for a total price of said maintenance part stored in said warehouse
4 facility; and

5 determining said quantity of said maintenance part to be ordered, said quantity of said
6 maintenance part to be ordered is reduced according to set conditions so that said total price of said
7 maintenance part stored in said warehouse facility approaches said target value.

1 25. The method of using the centralized maintenance part management system according to
2 claim 23, further comprising the steps of:

3 estimating a quantity of a maintenance part needed based on at least one of a change in a
4 quantity of said maintenance part to be shipped from said warehouse facility, a change in a
5 maintenance inspection of said machines, and a change in an operating status of said machines; and
6 determining said maintenance part to be ordered and said quantity thereof.

1 26. The method of using the centralized maintenance part management system according to
2 claim 22, further comprising the steps of:

3 storing information relating to periodic inspection periods for said machines; and

4 when there is a new machine to be managed in one of said plants, using said information
5 relating to said periodic inspection periods for said machines to determine a periodic inspection
6 period for said machine to be newly managed that is offset from said periodic inspection periods of
7 said machines.

1 27. The method of using the centralized maintenance part management system according to
2 claim 22, further comprising the steps of:

3 storing and maintaining plant-by-plant inventory information indicating a quantity of said
4 maintenance part stored in said plurality of plants; and
5 using said plant-by-plant inventory information to evaluate whether said maintenance part is
6 necessary.

1 28. The method of using the centralized maintenance part management system according to
2 claim 22, further comprising the step of:
3 determining maintenance parts to be shipped successively as a maintenance inspection
4 progresses, when a single machine needs a plurality of said maintenance parts to be shipped
5 successively during said maintenance inspection.